

REMARKS

Reconsideration of this Application is respectfully requested. Upon entry of the foregoing amendments, claims 1-13 are pending in the application, with claims 1 and 6 being the independent claims. Support for the subject matter of the amended claims is contained in the application as originally filed. For example, support for the amendment to the preamble of claim 1 may be found at least in original claim 2; page 1, lines 24-27; and page 3, lines 31-33. Support for the transmitting of claim 1 may be found at least on page 4, lines 18-22.

Because the foregoing changes introduce no new matter, their entry is respectfully requested.

Based on the above Amendment and the following Remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Objections to the Specification

The Examiner made objections to the specification based on the lack of headings as provided in 37 C.F.R. § 1.77(b). Applicant respectfully submits that the objection is overcome by the amendments thereto. Support for the amendments to the specification may be found in the application as originally-filed including the originally-filed claims and pages 2-3.

Rejections under 35 U.S.C. § 101

The Examiner has rejected claims 1-5 under 35 U.S.C. §101 as being directed to non-statutory subject matter. Applicant respectfully submits that the rejection of the claims is overcome by the following remarks and accompanying amendment to the claim 1.

Amended claim 1 is directed to a method of controlling a red-light camera and now recites “transmitting information regarding the part of the activation period during which the red light is on to the red-light camera.” Accordingly, claim 1 as amended clarifies that the subject

matter of the claim is structurally and functionally tied to a particular apparatus, namely, a red-light camera.

Applicant respectfully requests withdrawal of the rejection of claims 1-5 under 35 U.S.C. § 101.

Description of the Invention

The present invention relates to a method for controlling a red-light camera at a traffic light. As discussed on page 1 of the application as originally filed, a common problem among conventional traffic control systems is that flashing red lights pulse on and off at a high frequency and thus are not always visible by a high speed camera during the red light activation period. This is a particular problem with systems making use of flickering light-emitting diodes (LEDs) powered by an alternating current. Although the LEDs are switched on and off at a high enough frequency such that the switching is not perceptible to the human eye, there is a danger that the system will make a record at a moment between when the LEDs are actually on. In such a case there would be no pictorial evidence that a traffic violation occurred because the red-light camera shutter is open only between the LED flashes.

Rejections under 35 U.S.C. §§ 102 and 103

Claims 1-5

The Examiner has rejected claims 1-5 under 35 U.S.C. § 102 as being anticipated by or unpatentable over International Pub. No. WO2001/020581 to Lock et al. ("Lock"), alone or in combination with at least one of U.S. Patent No. 6,707,393 to Moore et al. ("Moore"), International Pub. No. WO2001/046931 A1 to Jang et al. ("Jang"), and U.S. Patent No. 6,111,523 to Mee et al. ("Mee"). Lock, alone or in combination with Moore, Jang, and Mee, fails to disclose or suggest the method of the present invention including flashing a red light and detecting the red light as called for by amended claim 1.

Lock does not disclose such a method. Lock is directed to a conventional system for making a picture record at the start of a red light period—at an instant a control signal changes a

traffic signal to a red light period. *See* Abstract. The system keeps the picture record if a vehicle is detected beyond a stop location. *See* Abstract. The picture apparently serves to demonstrate that the red light was burning before the vehicle passed the stop line. Lock, however, is not concerned with determining when the flashing red light is actually on during the activation period. Indeed, Lock does not discuss any means by which the system determines when the traffic light changes to red and burns. Instead, Lock presumes that when the traffic light has changed to the red light period, the red light will show in the picture. *See* pg. 5, lines 7-11. Although this may be true for a traffic light having conventional bulbs, it is not necessarily true for the claimed traffic light of which a red light burns in a flashing manner. In fact, Lock teaches away from the claimed traffic light which burns in a flashing manner for this reason.

In contrast, the claimed method includes “detecting during which part of the activation period the flashing red light is actually on.” *See* pg. 4, lines 17-21. As discussed at page 3, line 33 to page 4, lines 2, there is a danger that the shutter speed of the camera is so short that the entire recording will be made in the interval between when the red light burns. The claimed invention overcomes this problem by detecting and determining the period during which the red light is actually on. The system can even determine the ideal moment when the light intensity is greatest. *See* page 4, lines 3-16.

The Examiner takes the position that Lock at page 7, lines 9-11, discloses the claimed detecting. *See OFFICE ACTION* mailed March 23, 2009, at page 4. Applicant respectfully disagrees. The cited passage refers to the *activation period* of the red light, not the period when the “flashing red light is actually on.” With the Lock system, the activation period equals the burn time. The Lock system, therefore, does not require determining during which part of the activation period the red light is actually on because conventional bulbs will be on during the entire activation period. *See* pg. 5, lines 21-30. With the claimed flashing light, however, the red light will be on and off during the activation period. *See, e.g.*, Applicant’s FIG. 2.

The Examiner cites to Moore as disclosing the flashing traffic light and determining of claim 2. However, Moore is directed to solving an entirely different problem than the present invention. Moore uses flashing or flickering to improve visual perceptibility and distinctiveness

of a traffic light in the presence of significant artificial light sources, in particular neon advertising signs. *See* Abstract. In order to achieve the desired effect, the lights in Moore flash or flicker at a frequency *which is visible to the human eye*, contrary to the claimed invention, such that the traffic light is perceived as burning constantly. *See* col. 3, lines 14-17. Thus, even if one were to combine Lock and Moore, one would not arrive at the claimed invention.

With respect to claim 3, the Examiner cites to Jang as disclosing the claimed red light powered by an alternating current. Jang relates to LED traffic lights, but Jang has no bearing on red light cameras. Jang discloses a detecting unit to detect a failure in the LEDs making up the traffic light. *See* Abstract. The Jang detecting unit will cause an emergency lamp unit to start flashing in case of a detected failure. Jang does not disclose or suggest the flashing red light as called for by the claims.

For at least these reasons, Applicant respectfully submits that Lock, alone or in combination with Moore and Jang, does not anticipate or render obvious independent claim 1. Applicant submits that claims 2-5, which depend from claim 1, are allowable over the cited art for at least the same reasons noted above.

Claims 6-13

The Examiner has rejected claims 6-13 under 35 U.S.C. § 103 as being unpatentable over Lock in combination with Mee, Moore, and Jang. Claim 6 is directed to a device carrying out the method of claim 1. Lock, Moore, and Jang lack the flashing red light and red light detector of claim 6 for at least the same reasons as mentioned above with respect to claim 1.

Mee fails to make up for the deficiencies of Lock, Moore, and Jang. Mee relates to a mainly conventional red light camera system, which also offers the possibility of making a “pre-violation” photograph of a vehicle when the traffic light is red and the vehicle has not yet passed the stop line. Mee does not mention anything about using a flashing red light such as LEDs. Although Mee mentions the timing of photographs as important (col. 1, lines 8-34), it has no bearing on photographing a high frequency flashing light like an LED traffic light and is

therefore no more relevant than Lock. A combination of Lock and Mee would therefore not lead to the device of claim 6.

For at least these reasons, Applicant respectfully submits that Lock does not anticipate independent claim 6. Applicant submits that claims 7-13, which depend from claim 6, are allowable over the cited art for at least the same reasons noted above.

CONCLUSION

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided below.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extension of time or additional claims, and/or credit any overpayment to Deposit Account No. 50-0310.

Prompt and favorable consideration of this Amendment and Response is respectfully requested.

Respectfully submitted,

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